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EXAMINER	
KISH, JAMES M	

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3737	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	09/709,162	TEARNEY ET AL.	
	Examiner	Art Unit	
	JAMES KISH	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2013*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *See Continuation Sheet* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *68,70-72,74,76-82,84-94,96-102,104-148,153,154,156,157 and 159-165* is/are rejected.

8)☒ Claim(s) *68,76-78,89,113,125 and 131* is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

Continuation of Disposition of Claims: Claims pending in the application are 68,70-72,74,76-82,84-94,96-102,104-148,153,154,156,157 and 159-165.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on January 28, 2013 has been entered.

Response to Arguments

Applicant's arguments filed January 28, 2013 have been fully considered but they are not persuasive.

The Applicant argues that, as amended, the shield **12** of Kittrell may not be interpreted as "a lens" as currently claimed. The Examiner respectfully disagrees. Firstly, Kittrell teaches a catheter body **16** (i.e., a housing) which is separate from the shield **12**. Therefore, the shield may still be interpreted as "a lens" with respect to the claim language of the independent claims. Secondly, it is noted that Kittrell states, “Lenses or mirrors, and mechanical or optical aiming and focusing devices can be mounted inside of the shield (see column 4, lines 60-63).” Based on this, it is explicitly disclosed by Kittrell that lenses and optical aiming devices (in the instance situation,

prisms) can be mounted inside of the shield area. Therefore, while Figures 13A-J do not illustrate the use of more than one element within the confines of the shielded area, Kittrell's use of "and" provides teachings of doing so.

Furthermore, it is noted that any and all lenses provide an image – although it may be a real image or a virtual image. Therefore, to say that a lens forms an image is inherent in every situation. And regardless of the interpretation of virtual images, the lenses taught by Kittrell which reside at the distal end are used to direct the light to and from the optical fiber and this is done so to form an image.

The Applicant argues that the radiation provided to the lens from the fiber is a single point and then uses this as evidence that the radiation, after impacting the anatomical structure, cannot form an image. The Examiner respectfully disagrees. Firstly, this is conjecture, as evidenced by the Applicant's statement of, "... the radiation provided to the lens **21** from the fiber **20** in the Kittrell Patent is likely a single point…." Secondly, even if the light that comes from the fiber, which ultimately comes from the light source, is a single point it will partially reflect and partially scatter and back-scatter within the tissue, thereby causing more than a single point of light to return from the anatomical structure.

The Applicant argues that Kittrell fails to teach that "the end **40** of the fiber **20** is provided at a position of the image plane of a section of **the structure**. The Examiner finds this argument unpersuasive because *the image plane* is a characteristic of *a lens* and has nothing to do with *the anatomical structure*.

Claim Objections

Claims 68, 76-78, 89, 113, 125 and 131 are objected to because of the following informalities:

Claim 68 is objected to because “the information from the structure” as stated in line 9 lacks antecedent basis because there is no previous recitation of "information from the/a structure" prior to line 9. For example, the preamble states, "obtaining information *associated with* an anatomical structure," but fails to state that this is "information from the/a structure." Therefore, this is inconsistent.

Claim 68, 89, 113, 125 and 131 are objected to because “upon being impacted the radiation from the anatomical structure” seems to be grammatically incorrect.

Claim 68 is objected to because it is unclear how “receiv[ing] the electro-magnetic radiation and the information from the structure” as stated for *an optical waveguide* is different than "obtain[ing] the information" as stated for *at least one further arrangement*. In other words, it is unclear how an optical waveguide would *receive*, as opposed to solely transmit, electromagnetic radiation.

Claims 76-78 are objected to because they are dependent from a canceled claim. These will be treated as if they are dependent from claim 68.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

112, 1st Paragraph

The following is a quotation of 35 U.S.C. 112(a):

> *(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.*

The following is a quotation of 35 U.S.C. 112 (pre-AIA), first paragraph:

> *The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.*

Claims 147 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 164 is rejected because it states “the radiation is provided from the anatomical structure to impact (i) … (ii) … , and (iii) then the anatomical structure.” There is no portion provided within the specification that states that any radiation provided from the anatomical structure will then, again, impact the anatomical structure.

112, 2nd Paragraph

The following is a quotation of 35 U.S.C. 112(b):

> *(B) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.*

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

> *The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.*

Claims 68, 72, 88-89, 93, 108, 113, 117, 125, 129, 131, 147 and 163-164 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

Claim 68 is rejected because “wherein the lens and the dispersive arrangement are provided in an optical path between the optical waveguide and the anatomical structure" is defining the location of the lens and the dispersive arrangement relative to the anatomical structure, which is indefinite. When the device is not in use, this limitation fails to be true. Section 2114 of the MPEP states (with emphasis in the original), “’Apparatus claims cover what a device *is*, not what a device *does*.’ Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990).” In other words, if the device is resting on a table and not in use, no portion of the device can be defined with relation to an anatomical structure because a patient's anatomical structure is not part of the device.

Claim 68 is rejected because “the lens forms an image of the anatomical structure” at lines 16-17 is indefinite and unclear. This is because it is unclear and not defined how the lens suddenly forms an image. In other words, "upon being impacted the radiation from the anatomical structure" the lens would be configured to refract/diffract/etc. the impacted radiation to form an image.

Claim 72 recites the limitation "the lens arrangement" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 88 recites the limitation "the lens and dispersive arrangements" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 89 recites the limitation "the lens and dispersive arrangements" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 93 recites the limitation "the lens arrangement" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 108 recites the limitation "the lens and dispersive arrangements" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim because it lacks clarity as to whether this refers to the lens of claim 89 or if this is in reference to "a lens arrangement" as defined earlier in claim 108.

Claim 113 recites the limitation "the image-forming lens arrangement" in lines 12-13. There is insufficient antecedent basis for this limitation in the claim.

Claim 113 recites the limitation "the lens and dispersive arrangements" in the third to last line. There is insufficient antecedent basis for this limitation in the claim.

Claim 117 recites the limitation "the lens and dispersive arrangements" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim because it lacks clarity as to whether this refers to the lens of claim 113 or if this is in reference to "a lens arrangement" as defined earlier in claim 117.

Claim 125 recites the limitation "the lens and dispersive arrangements" in the third to last line. There is insufficient antecedent basis for this limitation in the claim.

Claim 129 recites the limitation "the lens and dispersive arrangements" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim because it lacks

clarity as to whether this refers to the lens of claim 125 or if this is in reference to "a lens arrangement" as defined earlier in claim 129.

Claim 131 recites the limitation "the lens and dispersive arrangements" at two different places within the claim. There is insufficient antecedent basis for these limitations in the claim due to the lack of "a lens arrangement."

Regarding claim 147, the fact that the optical fiber has an end portion that *may or may not* be specifically provided at a position of an image plane of the at least one section of the structure (i.e., the anatomical structure) as established by the lens provides dependence of the system to actually be in use and in proximity to the at least one structure. For instance, when the system is not being inserted into a patient and rests on a table, the system of claim 68 fails to meet the claim 147. Therefore, it cannot be said that this claim positively defines the system without being indefinite still. Also, the image plane is related to the lens, not the anatomical structure, and should be specifically claimed as being a characteristic of the lens.

Claim 163 recites the limitation "the lens and dispersive arrangements" at two different places within the claim. There is insufficient antecedent basis for these limitations in the claim due to the lack of "a lens arrangement."

Claim 164 recites the limitation "the lens and dispersive arrangements" at two different places within the claim. There is insufficient antecedent basis for these limitations in the claim due to the lack of "a lens arrangement."

Claim 164 recites the limitation "the radiation" in line 1. There is insufficient antecedent basis for this limitation in the claim because claim 68 provides "electro-magnetic radiation" and "dispersed radiation."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 68, 70-72, 74, 81-82, 84-87, 89-94, 101-102, 104-107, 109-116, 118-128, 130, 137-140, 148, 153-157 and 161-165 are rejected under 35 U.S.C. 102(b) as being anticipated by Kittrell et al. (US Patent No. 5,318,024) – herein referred to as Kittrell.

Kittrell discloses a laser endoscope for generating a spectrally resolved spatial (therefore, at *least* two-dimensional) image of tissue. Kittrell illustrates at least one lens arrangement in Figures 21 and 22 with numeral **40** and **41**, which guides light into optical fibers. Furthermore, Kittrell teaches that the shield **12** maybe use to control spot size by means of lenses inserted within the shield (column 5, lines 33-34). Also, Figure 23 illustrates a reflective mirror lens grating combination **68** at the return end of the device. In several embodiments of Kittrell, a lens, multiple lenses, holographic elements, gratings, prisms or a mirror can be used to control the location and divergence of laser light and return fluorescence or scattered light (column 13, lines 64-68). These elements (a lens, multiple lenses, holographic elements, gratings, prisms or

a mirror) can be controlled by wires. Light from conventional sources may be used broadband, or it may be filtered or dispersed (column 20, lines 59-62). The laser catheter can be used to penetrate most types of tissues (column 6, lines 5-21), thereby modifying a property of the structure. As illustrated in Figure 25, the distal ends of the optical fibers are at different angles and column 8, lines 57-60 states that the distal ends of the optical fibers are optically polished. As seen in Figure 17C, the light emitted from the end of the probe is made to overlap.

*Firstly, Kittrell teaches a catheter body **16** (i.e., a housing) which is separate from the shield **12**. Therefore, shield may still be interpreted as "a lens" with respect to the claim language of the independent claims. Secondly, it is noted that Kittrell states, "Lenses or mirrors, and mechanical or optical aiming and focusing devices can be mounted inside of the shield (see column 4, lines 60-63)." Based on this, it is explicitly disclosed by Kittrell that lenses and optical aiming devices (in the instance situation, prisms) can be mounted inside of the shield. Furthermore, it is noted that any and all lenses provide an image – may it be a real image or a virtual image. Therefore, to say that a lens forms an image is inherent in every situation. And regardless of the interpretation of virtual images, the lenses taught by Kittrell which reside at the distal end are used to direct the light to and from the optical fiber and this is done so to form an image. And finally, "the lens forms an image of the anatomical structure" fails to actually provide further structural limitations because* Section 2114 of the MPEP states, "While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure

rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)."

Regarding claim 148 of the current application, claim 1 of Kittrell states, "processing the separated light received by the detector with a computer such that the spectrally resolved light provides a displayable spatial image of the illuminated tissue."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

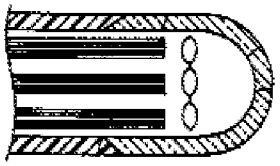
> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 147 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kittrell alone. As previously stated, Kittrell teaches a system that reads on the claim language

of claim 68. However, Kittrell does not explicitly state that the end of the optical fiber is specifically at an image plane of the at least one section of the structure which is established by the lens.

Specifically regarding claim 147, the fact that the optical fiber has an end portion that *may or may not* be specifically provided at a position of an image plane of the at least one section of the structure (i.e., the anatomical structure) as established by the lens provides dependence of the system to actually be in use and in proximity to the at least one structure. For instance, when the system is not being inserted into a patient and rests on a table, the system of claim 68 fails to meet the claim 147. Therefore, it cannot be said that this claim positively defines the system without being indefinite. And secondly, Kittrell teaches the use of a lens at the distal end as a means to direct the light which is sent back from the anatomy back into the optical fiber. Furthermore, Figure 13E provides three lenses for three optical fibers, such that these lenses are spaced from the optical fibers - *see below*.



An additional teaching from Kittrell states that lenses may be located specifically at the distal end of the optical fiber or also found within the optical fibers themselves. Therefore, it would be obvious to one of ordinary skill in the art that a single lens may be used, or multiple lenses may be used on a one-to-one relationship to the number of

optical fibers and that, therefore, it would be obvious to provide these optical fibers at an image plane of the lens.

Claims 88, 108, 117, 129, 131-136, 141 and 159-160 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kittrell in view of Olinger et al. (US Patent No. 3,941,121) – herein referred to as Olinger. Kittrell is discussed above in the rejection of claims 68, 89, 113, 125. However, Kittrell fails to provide a fluid displacement arrangement. Olinger teaches a needle endoscope including a hollow needle of about 18-gauge (*see* Abstract). To clear the area for better viewing in certain situations, a syringe can be connected to a luer lock, associated with the coupling, and warm normal saline solution can be injected through the electrode channel (column 10, lines 32-40). It would have been obvious to combine the teachings of Olinger with the device of Kittrell in order to provide operative visual supervision of a treatment procedure performed through an operative channel of the needle and which his small enough to be universally acceptable for introduction into previously inviolate tissue area without resorting to open surgery techniques (column 2, lines 56-62).

Claims 76-78 and 96-98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kittrell in view of Webb et al. (WO 99/44089) – herein referred to as Webb. Kittrell is discussed above in the rejection of claims 75 and 95. However, Kittrell fails to teach a specific number of resolvable points that make up the image. Webb teaches that the number of resolvable points is related to the total bandwidth of the

source and the bandwidth of the spectrum. The number of resolvable points may be any number governed by Equation (2) on page 3. An example is provided on page 4. Absent the showing of criticality, it would have been obvious to one of ordinary skill in the art at the time the invention was made to create an image with any number of resolvable points based on the equation of Webb as a matter of design choice.

Claims 79-80 and 99-100 rejected under 35 U.S.C. 103(a) as being unpatentable over Kittrell in view of Baker et al. (US Patent No. 5,275,594) – herein referred to as Baker. Kittrell discloses a catheter used for diagnosis and removal of arterial or vascular obstructions (column 1, lines 14-16). See the previous description of Kittrell in the rejection of claims 68 and 89. However, Kittrell does not explicitly disclose a diameter for the probe. Baker teaches that the diameter of arteries is on the order of one to a few millimeters (column 1, lines 40-41). Therefore, it would be obvious to one of skill in the art at the time the invention was made to design the probe of Kittrell to have a diameter of less than about one millimeter in order to allow the device to enter any location in the arteries and vasculature of the patient, based on the teaching of Baker.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sauer et al. (US Patent No. 5,573,493)

Sauer teaches an endoscope attachment for changing angle of view (*see* Title). "The optical components of distal end portion **22** of endoscope sheath **10** also includes a concave lens **26** which is positioned between prism **24** and the area to be viewed. Lens **26** assists in directing the incident rays through optical member **24** and acts as a window, sealing the prism from the external environment. A convex lens **28** is positioned between optical prism member **24** and objective lens **1016** disposed at the distal end of the endoscope image transferring system **1012**. Concave lens **26**, prism **24** and convex lens **28** couple the image into the endoscope which maintaining the field of view, albeit at an altered angle (*see* column 6, lines 1-11)." "It is also envisioned that a video system including a monitor may be operatively connected to housing 1002, such as by coupling to eyepiece 1014, to provide a video image of the body tissue being viewed (*see* column 4, lines 32-37)." "Any known illumination source may be connected via a light guide 200 (FIG. 2) to coupling port 1010 to provide the illuminating light for the fiber optics 1008. Such illumination sources include, for example, the Lumatec model Superlite light source, halogen lamps, Argon or He-Ne-lasers, tungsten filament incandescent lamps, etc. (*see* column 4, lines 24-31)."

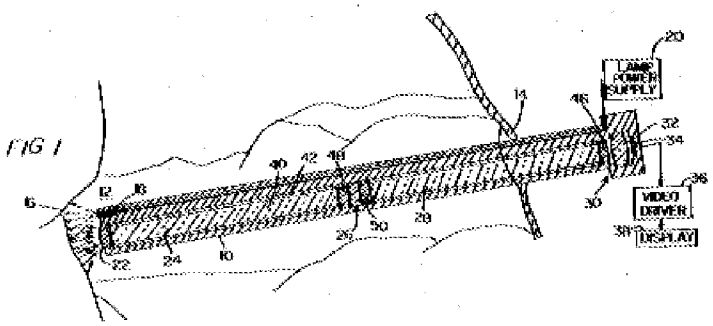
Ono et al. (US Patent No. 5,394,499) and Yamasita (US Patent No. 4,138,192)

Ono discloses an observation system with an endoscope (*see* Title). The system comprises an image guide fiber to allow transmission of the image, an object optical system (comprising an object lens) arranged in front of the entrance end fact of the image guide fiber (*see* Abstract). As illustrated in Figure 7, there is a solid-state image

pickup device **44** (i.e., at least one *further arrangement*) and a light source device 56 having a lamp **54**. It is obvious that this lamp will either be a broadband source (i.e., spanning multiple wavelengths) or tuned to a specific wavelength, since there are no other alternatives. Figure 7 also illustrates that there is a housing by which all of the elements are held together in order to create a working endoscope.

Yamasita teaches a forward-oblique viewing optical system for endoscopes. Yamasita provides an observing-direction changing prism which has a surface for refracting rays from an object to be observed and is arranged in front of an objective (*see* Abstract). By this design, Yamasita provides the ability to image a wider field of view with an endoscope (*see* column 2, lines 50-65; particularly, discussion of use as an ultra-wide angle lens).

Anderson (US Patent No. 5,263,110) discloses an endoscope in which a prism may be disposed at its end, along with an objective lens. The system is illustrated below:



Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES KISH whose telephone number is (571)272-5554. The examiner can normally be reached on 8:30 - 5:00 ~ Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Unsu Jung can be reached on 571-272-8506. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Kish/
Primary Examiner, Art Unit 3737